Adolescent's Preferences for Complexity in Retail Store Environments

A Senior Honors Thesis

Presented in Partial Fulfillment of the Requirements
For graduation with distinction in Textiles and Clothing
In Education and Human Ecology
At The Ohio State University

The Ohio State University
March 2007

Project Advisor: Dr. Susan L. Zavotka, Associate Professor,
Dr. Nancy A. Rudd, Associate Professor
Department of Consumer Sciences

Abstract

Shopping is a large part of American's lifestyles whether they like it or not. It is specifically a large part of adolescent's lives with them spending $300 billion per year. Store targeting adolescents can use aesthetics as a competitive advantage to keep adolescents customers coming back for more or to intrigue new ones. The purpose of this study is to better understand the behaviors (emotional) of adolescents in the apparel retail environment. More specifically to determine their level of preferred complexity, how their immediate feelings are affected by store complexity, how adolescents describes different levels of complexity, and how adolescents react to certain aesthetics within retail stores.

In order to do conduct this research a sample of ten adolescents females experienced three retail environments ranging in complexity (simple, simple/complex, and complex). They were asked to complete a set of surveys pertaining to their store preferences, immediate feelings, aesthetic preferences, and descriptions of ranging complexities.

The results suggest that adolescents prefer complex retail environments. While in complex stores their stress levels decrease, their energy increases, and their positive feelings increase. These aspects are the exact opposite for simple retail environments. The adolescents described complex retail environments positively and simple retail environments negatively. The adolescents were not affected by organizational aesthetics but reacted positively to complex aesthetics pertaining to the elements of design including color and textures. However, more research is needed to compare adolescents from around the globe and to compare within environments that offer different types of products.

Table of Contents

Chapter 1

Introduction

Every second of the day thousands of Americans are shopping and they spend billions upon billions of dollars in doing so. Further, the 27 million adolescents of this population manage to spend $300 billion per year of their own and their parent's money, making them the leading age group in spending (McNeal, 1999). The majority of this money is being spent in retail stores. The average adolescent makes over two trips a week to a shopping center (McNeal, 1999). What keeps them coming back to the store to spend more? Fayek (1998) believes that the aesthetics of the store is what influences the customers to keep returning. He stated that the way the store design displays the products creates an experience and emotional relationship between the customer and the store. If the relationship created is positive, then the customer will feel satisfied and will return.

Aesthetics is defined by Wenz-Gahler (2002) as pleasing effects pertaining to the senses, but he also believes that it particularly pertains to sight. He concluded that it is basic instinct for humans to judge objects primarily based on what they see instead of what they hear or smell because people can take in more information through vision than any other sense at any one given moment. Retail stores play into this concept through store design and visual merchandising. Wenz-Galher (2002) stated that aesthetics are designed and applied to cover every inch of the store. Aesthetics are included in everything around and in between the floor and the ceiling because everything that has a surface has an impact on the customer's behavior.

However, a certain aesthetic does not always provide the same shopping behavior in all people. Some aesthetics make certain people approach a space and some

make other people avoid a space. Russell and Mehrabian (1974) concluded that the reasons for these differences are due to the fact that behavior influences depend on the person and the environment. People have different reactions to certain environments due to their age, current mood, and previous experiences. When these "person" factors interact with environmental factors such as simple, complex, and simple/complex designs, either an approach or avoidance behavior is elicited. For example, according to Hamilton (1983), adolescents have a higher need for stimulation than other age groups. Therefore they may enjoy a more complex store design.

Purpose:

The purpose of this study was to better understand the behaviors of adolescents in the apparel retail environment. The specific research questions were;

1. Do adolescents prefer complex, simple, or simple / complex retail environments?
2. How does the level of complexity within a store affect the immediate feelings of stress and relaxation of adolescents?
3. Do adolescents describe simple, complex, simple / complex stores differently by using different descriptor words for each?
4. How does adolescents' preferences for complexity compare to Berlyne's generalized model?
5. Do the adolescents react positively or negatively to particular aesthetics that contributed to levels of complexity within the complex, simple, and simple / complex stores?

This study could also make an impact on retail design. It provides designers of apparel retail environments with guidance on how to attract adolescents by designing to their needs and preferences. It also helps adolescent shoppers realize that retail environments try to influence their decision making through aesthetics.

Due to the fact that it is almost close to impossible to perform a perfect experiment, this experiment contains some underlying factors that could potentially cause

bias. First of all, the sample size consisted of ten adolescents, which is considered small and could lead to bias due to too much room for variability. The sample was also selected from eastern Massachusetts, which could lead one to argue that the sample did not include the entire population. Adolescents in another geographic region could have reacted completely differently to the experiment. Finally, the same survey was given to the sample for every store. This could lead to potential bias because the respondents could have been looking for the specific questions on the survey after the first store.

Overall, the intentions of this experiment were to get the idea of designing retail environments, started specifically environments targeting adolescents. It was not meant to be perfected but to be an exploratory study for this specific area of design research. Even though there are limitations, the results are interesting to see.

Chapter 2

Summary of Related Work

Environmental/ Behavior Theory:

The Environmental Behavior Model is a sequential concept of the consumer's decision making process (See Figure 1). Russell and Mehrabian (1974) concluded that it is a basic equation that focuses on how the actual behavior of the person depends, in every case, upon his or her individual characteristics and upon the momentary structure of the existing situations.

Figure 1: Environmental Behavior Model

Person		**Environment**		**Behavior**
Mood Previous Experience Age	+	Complex Simple Complex and Simple	→	Approach Avoidance

Person:

For this research, the person variable in the Environmental Behavior Model deals with the psychological state of mind within the consumer. Every human visually interprets, judges, and reacts towards stimuli differently. This uniqueness causes there to be a lot of factors, including mood, desire to be like others, past experience, and age, that need to be taken into consideration within the person variable. Fedorikhin and Cole (2004) determined that negative or positive moods created by one event can influence consumer judgments in other situations. This transference usually occurs unconsciously. Petty and Pham (1998) concluded that people tend to use their mood as a source of

information through a "how do I feel about it?" heuristic when they are evaluating a stimulus. When a person uses this heuristic, they end up mistaking their mood for their feelings about the stimulus. Their current mood is doing the evaluating and judging of the stimulus and not their preferences for a particular environmental design.

A person's mood can be decided or changed within an instant but another factor that takes a little more time to develop is the person's memory of the retail space. Folkes (1988) stated that consumers who experience a highly positive or highly negative attitude towards a retail space will be more likely to retrieve that particular experience from memory. When a person has a highly negative or positive experience they tend to remember it more clearly, especially exactly how they felt physically and mentally. With these emotions locked into their memory, people will base their estimates of the likelihood of future events on the ease with which they can recall an exemplar of that event (Macleod & Campbell, 1992). Due to human nature, if a consumer develops a highly negative or positive experience within a store, then they are likely to associate the store to that experience which leads to either an approach or avoidance behavior in the future.

Not all people react the same way and develop the same emotions towards certain environments and a major factor of these differences is age. Chevrier (1980) concluded that adolescents have a positive reaction towards complex aesthetics because they have a higher perceptual capacity. Adolescents find complexity more pleasurable because they can tolerate a large amount of visual information at once. Even though incorporating complexity into retail stores can be expensive, due to the excessive amount of materials and items used, adolescents have become a major target audience. This is

primarily due to the fact that the 27 million adolescents in the United States have been estimated to spend $150 billion a year of their own money and another $150 billion of their parents' money annually in the past decade (McNeal, 1999). The cause of these outrageous spending trends in adolescents is due to their stage in development. Adolescents are coming out of puberty and into maturity so they are trying to establish their own identity. Erik Erikson (1990) concluded that adolescents experience identity vs. role confusion. They expose themselves to many self-images to identify who they are. People tend to display who they are through their appearance. Adolescents are doing so just in a more costly manner than any other age group.

Adolescents will go to great lengths to acquire a certain style and image as opposed to other age groups because they are also highly concerned with how their body image relates to their peer's and to adults (Collins & Kuczaj, 2000). Adolescent's are also going through an identity development at this age. This concept also ties into the phenomenon of automatic mimicry of observable behaviors (Chartrand, 2005). Iacoboni (2004) noted that when people observe someone performing a behavior, they activate the same pre-motor areas in their brain that are active when they perform that action themselves. In addition, through linkage with the brain regions involved in coding intentions and goals, we "understand" others' behaviors. By doing this mimicry several times we, especially adolescents, feel that we "understand" others' behaviors so well that we believe that we are just like them. For example, a teenage girl purchases a handbag that she saw her favorite celebrity modeling in a magazine because she wants to be associated with having that celebrity's image and lifestyle.

In summary, there are certain underlying factors behind shopping behaviors and one of them is the type of person within the retail environment. A person's age can help determine the amount of stimulus that is preferred. It has been reported that adolescents prefer complex environments which contain a large amount of visual stimulus. The current mood of adolescent shoppers can also influence their overall opinion of the retail store. Adolescents also are known to mimic the style of the store that the design creates in order to be associated with the store's certain image. These past opinions or experiences of the retail store are also very likely to be stored into people's memories which transfer over to future shopping behaviors in the store.

Environment:

The mental and psychological factors of the person variable can be influenced and manipulated through stimulation within the environment of the retail store. Evans (1998) described environmental stimulation as the amount of information in a setting or objects that impinge upon the human user. The application of the elements and principles of design within a retail space can accomplish all desired levels of stimulation. Allen and Jones (2004) stated that the six elements of design are space, line, shape, form, texture, light, and color. These elements are applied to a design using the principles of design which are scale/proportion, balance, emphasis, rhythm, and harmony.

An element or principle of design could be used independently to hint or sway a consumer towards a certain behavior, but ultimately it is all the elements and principles of design put together that create the overall image of the store and influence the behavior of the consumer (Gilboa 2003). Various combinations of these elements and principles can create atmospheres that can be categorized as either simple, complex, and both

simple and complex. From these core design categories a consumer can define characteristics of the store as being dynamic, active, monotonous, dull, etc. Berlyne (1971) defined a simple environment to be one that has little detail, few objects, symmetry, regularity, and neutral tones (See Figure 2). He defined a complex environment as having a lot of variety within textures, colors, patterns, number of items, and organization (See Figure 2). A both complex and simple space is a mixture incorporating concepts and elements of both designs (See Figure 2). Berlyne's (1971) studies have confirmed a curvilinear relationship between complexity and preference, with moderate levels of complexity being most preferred (Figure 3). This means that there needs to be a certain amount of simplicity and complexity developed within a space to be considered enjoyable. Berlyne's (1971) studies have concluded that complexity creates arousal and pleasantness within people. However, adding simplicity to a complex configuration creates different effects from those brought about using complexity alone. For example, if a very large and intricate tapestry was placed on a wall with very complex and ornate wallpaper then the tapestry would not be as recognized because it would be hidden amongst the wallpaper. However, if the same tapestry was hung up against a white wall which is very simple then the tapestry would have a different effect by becoming a focal point (For a complex and simple environment see Figure 2). Even though simplicity and complexity are completely opposite, there needs to be a presence of both to achieve a moderate amount of stimulation. If there is too much simplicity or complexity, then the space would achieve an extremely boring or confusing effect upon the consumer. Simplicity and complexity meet in the middle of the scale to establish a moderate level of the two, which is shown by the peak of the curve in Figure 3.

Figure 2: Examples of Complex, Simple / Complex, and Simple Environments

Complex Space

Simple / Complex

Simple Space

Figure 3: Berlyne's Pleasure vs. Complexity Theory

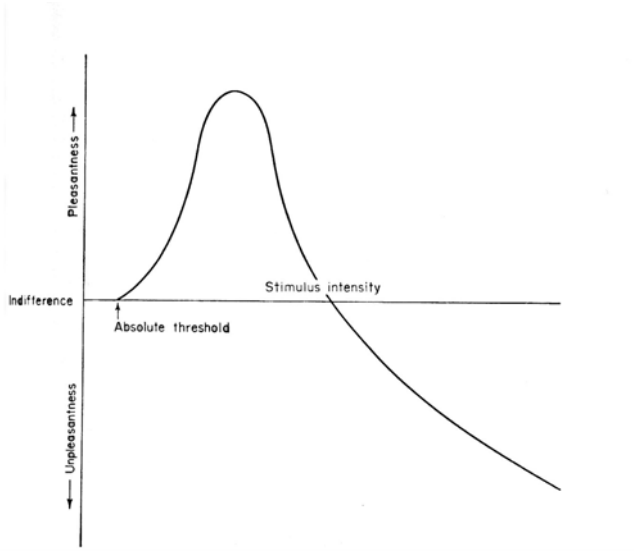
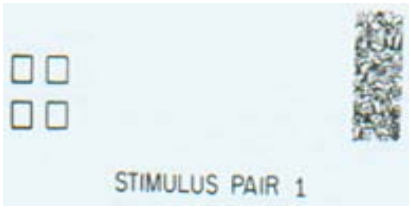


Figure 4: Objects used in Berlyne's experiment



Even though Berlyne (1971) concluded that there is only a certain amount of complexity that can be enjoyed he did not make the conclusion based on separate age groups. He studied people from ages 18 to 55 years old. His conclusion was a generalization of a wide range of ages and cannot be applied towards any one specific age group. Hamilton (1983) stated that significant changes in both the capacity and the content of attention emerge during adolescence, causing there to be a need for higher stimulation or complexity to prevent boredom. He also used objects ranging in complexity instead of environments. His sample was exposed to two objects that were to shown to them on paper. These objects were geometric and abstract shapes (See Figure 4). One object was of a simpler form with few sides and a geometric shape (example-triangle) and the other had a complex form with many angles and an abstract shape (example-star). Also, one could argue that the products alone do not provide enough

stimulation, it is the total store atmosphere that sells the store's message to the customers about who they are. Wenz-Gahler (2002) stated that the environment creates a shopping experience which portrays a certain type of lifestyle. The products alone provide a minimal amount of information about what type of store it is. The way that the products are displayed and shown to the customers is what develops the type of lifestyle their customer's experience. As a result, the products of the retail stores are being assessed and described as an accessory to the environment's aesthetic design.

Behavior:

As the model of the Environmental Behavior Theory illustrates (See Figure 1), all of the factors within the person and environment variables interact to achieve the end result which is the behavior of the consumer. Donovan and Rossiter (1982) conclude that the consumer's behavior can ultimately be placed into two categories, approach and avoidance. Approach is considered to be the consumer exploring all areas of the store, spending a reasonable amount of time within a store (times will vary due to the type and size of the store), and being willing to come back in the near future. Avoidance is considered to be the exact opposite. The consumer does not bother or care to explore all areas of the store, spends a very limited amount of time within the store (times will vary due to the size of the store), and is not willing to come back in the near future.

Because age is an influential factor in the Environmental Behavior Model, adolescents should have a different resulting behavior towards an environment than other age groups. Hamilton (1983) concluded that behavior can not be generalized across all age groups. Some environments that are labeled as more active and elaborate will attract more adolescents than other age groups and some environments that are labeled as

conservative and passive will repel more adolescents than other age groups. This is due to a mixture of all the underlying characteristics in adolescents (mood, previous experiences, mimicry) and their environmental preferences (more complexity).

Previous research indicates that adolescents should have a different approach or avoidance behavior towards certain retail environments. This research seeks to determine how the level of complexity of a store design might affect their approach or avoidance behavior.

Chapter 3

Methodology

The design for this project was a quasi-experiment since there was no control group. The method used for this project consisted of four parts based primarily on the Environmental Behavioral Model (Figure 1). Before the experiment proceeded, criteria were provided for guidance in the selection of the retail environments. The criteria were developed from Berlyne's (1971) description of simple, complex, and simple complex mixed objects (See the following section on Development of Criteria and Selection of Specific Retail Stores). The first part of the experiment was an evaluation of the psychological and emotional state of mind of the selected sample which was composed of ten high school girls (sixteen to seventeen years old). The sample was placed into three different apparel retail store environments categorized as either simple, simple / complex, or complex, which they visited with a group leader/ They also completed a survey about their opinions and impressions of the stores. These surveys were assessed to determine a common approach or avoidance trend within each type of retail environment. Finally, surveys about store observations and preferences helped determine whether adolescent females prefer retail spaces that have more or less complex aesthetics than the general conclusion in Berlyne's theory (1971) (See Figure 3).

Description of the Sample:

The selected sample consisted of ten Caucasian females that were either sixteen or seventeen. They were recruited from Milton High School, which is a public high school fifteen minutes south of Boston, Massachusetts. Only females were included in this experiment because shopping is enjoyed more by females than by males (Fitzgerald,

1996). The sample was recruited by the experimenter with the help of a seventeen year old male adolescent that was from the same high school. The recruited sample was also allowed to recruit close friends or classmates, which also happened.

Development of the Criteria and selection of specific retail stores:

The three retail environments that were used in this experiment were DKNY, Banana Republic, and Urban Outfitters. These retail stores are apparel stores located on Newberry Street in Boston, Massachusetts. The location was in Boston because the experimenter was very familiar with the area. These stores are ones that sell mainly apparel so the product line was fairly consistent across stores. These three stores were specifically selected due to a set of criteria. The criteria used were based on Berlyne's (1971) descriptions of simple, simple and complex, and complex compositions. I first attained Berlyne's criteria and then searched for three stores that fit it. Berlyne (1971) described a simple environment to be one that has little detail, few objects, symmetry, regularity, and neutral tones (See Table 1). Therefore, DKNY was selected because it has little detail in its fixturing and wall décor, minimal use of materials consisting of white paint, concrete flooring, beige seating, light wooden shelving, and small stainless steel fixtures. It also contained a small amount of merchandise to allow for a lot of open space and visibility through the entire store. All of these design features were used constantly throughout the store to keep it very regular and stable (See Figure 6).

On the other hand, Berlyne (1971) defined a complex environment as having a lot of variety within textures, colors, patterns, number of items, and organization (See Table 1). Urban Outfitters fit this criterion very well. The store contains a vast variety of elements including texturized stainless steel found in the stairwell, contrasting purple and

white paint on the walls, ornate white tables and geometric wooden tables for the displays and shelving, and oriental rugs and worn wood for the flooring. The store also contains masses and masses of clothing piled up on the shelves, hung on the racks and even hung on the sides of displays. Also, the large amount of merchandise and displays creates an unorganized layout causing the customer to make a lot of maneuvering decisions (See Figure 6).

Finally, a simple and complex environment is a mixture of the two. For example, a simple and complex mixture could be a retail store that is symmetrical in its store layout, has a large number of product displays, uses neutral colors, but has a variety of materials such as wood and aluminum that give texture (See Table 1). Banana Republic fits this description very well. This store has a very organized layout without being too open; there are displays and fixtures to redirect the customers' path but not an overwhelming amount. There are a variety of materials that are not too minimal and not too overwhelming consisting of black aluminum, maple wood, light beige carpeting, and white walls. There is also a good balance between details in the store. There is a large circular skylight that captures the eye but the rest of the rooms and walls are fairly plain with a small baseboard trim. There are a few paintings that, together, balance the skylight (See Figure 6).

Table 1: Comparison of Berlyne's criteria to the retail environments in the experiment

	Variety	Number of Items	Organization
Simple Environment Berlyne	Little detail Neutral tones Regularity	Few objects	Symmetry
Simple Environment DKNY	Beige and white colors Consistent lighting Simple geometric displays Concrete, stainless steel, and wooden materials	Minimal merchandise (not massed out) Minimal displays	Straight aisles No obstacles Open space Open layout Levels closed off from each other
Simple/ Complex Environment Berlyne	Any mixture of simple and complex (neutral colors and many materials) Little detail in trim Large circular skylight	Any mixture of simple and complex (many displays)	Any mixture of simple and complex (symmetrical)
Simple / Complex Environment Banana Republic	Black aluminum, wood, and carpeting Beige, black, and white colors	Many displays Merchandise not massed-out	Few obstacles Open and closed spaces
Complex Environment Berlyne	Many textures Many colors Many patterns	Many objects and items	Asymmetry Variety
Complex Environment Urban Outfitters	Texturized steel, worn wood, and oriental rugs Purple and white colors Sporadic lighting	Massed-out merchandise Many fixtures and displays	Levels open to each other Many obstacles Minimal space Displays close to each other

Figure 6: Pictures of simple, complex, simple / complex retail environments used in the experiment

Simple Environment: DKNY

- Concrete flooring
- Light wooden displays
- Open space (no obstacles)

- Straight aisles
- Consistent white coloring
- Minimal Merchandise

- Beige and white color palette (neutral)
- Open layout
- Closed off from second level

- Straight aisles
- Consistent lighting
- Simple geometric displays

Simple / Complex Environment: Banana Republic

- Open between levels
- No absolute straight pathways

- Minimal color palette
- Orderly displays

- Complex skylight
- Orderly displays

- Detail in trimmings
- Average amount of merchandise is out on display

Complex Environment: Urban Outfitters

- Open between both levels
- Merchandise at many eye levels
- Various types of materials being used

- Massed-out merchandise
- Displays create obstacles

- Sporadic lighting
- Inconsistent flooring materials

- Complex artwork
- Winding pathways

Measuring the Sample's Behavior (Emotional):

The sample's behavior (emotional) was measured by using a number of surveys before and after experiencing each retail environments (See Appendix A). The surveys used before experiencing the stores were;

1. Pre-Feeling Survey: Measures the sample's stress level, energy, and positivity of the world to help determine if adolescents' immediate feelings of stress, energy, and positivity are affected.
2. Past Experience Survey: States the participants' past experiences within the store to help detect any bias.

The surveys used after the sample experienced the stores were;

1. Approach or Avoidance Survey: Asks the participants if they would visit the store in the future or recommend to a friend to help determine their store preference.
2. Evaluation of the Store's Aesthetics: Helps determine adolescents' aesthetic preference in retail environments.
3. Descriptions of the Store Survey: Helps determine if adolescents describe complex, simple / complex, and simple environments differently by using different descriptor words for each.
4. Store Preference Survey: Measures the participants' most and least preferred store.
5. Post-Feelings Survey: Exact same survey as the Pre-Feelings Survey and is used in direct comparison to measure adolescents' immediate feelings upon exiting each store.

Procedure:

The sample of teenagers was divided into three groups for store visitations. The visitations were all done at on the same day and right after another with no intermissions. Each group had an adult leader who did not participate in the study. The group leaders were in charge of collecting the surveys, handing out the surveys, keeping track of time, and making sure the participants were behaving accordingly. Groups one and two each had three participants and group three had four participants. Every participant was given an identification number to make sure that they received their own survey back each

time. They were not allowed to bring the survey into the stores. The group leader held the surveys for them. Each group visited all three stores in alternating sequence (See Table 2). This prevented extensive socializing amongst the females and crowding within the stores. It also prevented the sample from figuring out the intentions of the experiment. The sample was timed from the moment they entered the store to the moment they exited the store. They had a minimum of ten minutes that they had to stay in the store so that they could provide a decent evaluation and they had a maximum of forty minutes to help prevent boredom amongst the other participants that were waiting. They were asked not to purchase or to try anything on to help exclude any bias towards the issues related to fit and service. They were not told anything about the intentions of the experiment. They were simply told that this experiment required them to experience three retail environments. The whole experiment was completed just less than two and a half hours.

Before entering each store the participants completed the Pre-Feelings Survey and the Past-Experience Survey (See Appendix A and Table 3). The Pre-Feelings Survey asked them psychological questions about their current mental state of mind by asking them to rank on a scale of one to ten how much related stress, energy, and positive feelings they were experiencing at the time. The Past-Experience Survey asked them to rank their previous positive or negative experiences with the three retail stores in the study on a scale of one to ten with negative being one and positive being ten (See Appendix A). Once the sample finished both surveys the group leader collected them and the participants entered the store. After the forty minutes ended or when everyone had exited the store, the group leader collected the participants and they completed the rest of the surveys.

They then completed the Approach or Avoidance Survey (See Appendix A and Table 3) which asked them to rate on a scale from one to ten whether they enjoyed being in the store, if they would like to come back to that store in the future, and if they would recommend that store to a friend. Then they completed the Evaluation of the Aesthetics Survey (See Appendix A and Table 3). The survey included questions regarding the elements and principles of design (color, texture, space/form, lighting, etc.) as well as other items, such as customer service and product quality, to mask the intentions of the experiment. They ranked these items on a scale of one to ten, with one being the lowest, of whether or not they were stimulating or pleasing to the eye (See Appendix and Table 3). The intent of this survey was to suggest how the design elements and principles might be used by adolescents to explain complexity and simplicity. Then the participants completed the Descriptions of the Store Survey (See Appendix A and Table 3). The survey consisted of a list of adjectives and asked the participants to circle every adjective that described the store. This helped to understand how adolescents describe certain environments. Next the participants completed the Post-Feelings Survey (See Appendix A and Table 3). This survey is exactly the same as the Pre-Feelings Survey. The participants were asked these questions again to determine if certain levels of stress, energy, and positive feeling about the world were affected by the retail environments. The participants completed all of these steps for all three stores. However, after the sample's third store they were asked to complete the Store Preference Survey (See Appendix A and Table 3). The survey asked the participants to state the store that they enjoyed the most and the store that they enjoyed the least. This survey helped to determine what type of stores adolescents prefer.

Table 2: The order in which each group experienced each retail environment

	Simple	Simple/Complex	Complex
Time Slot 1	Group 2	Group 1	Group 3
Time Slot 2	Group 3	Group 2	Group 1
Time Slot 3	Group 1	Group 3	Group 2

Table 3: Procedure in which the sample completed the experiment

1. Participants arrive at Newberry Street
2. Each group arrives at their first store (See Figure 5 for the group schedule)
3. Complete the Pre-Feelings Survey
4. Complete the Past Experience Survey
5. Experience store #1 (between 20-40 minutes)
6. Exit store #1 and complete the Approach or Avoidance Survey
7. Complete the Evaluation of the Aesthetics Survey
8. Complete the Descriptions of the Store Survey
9. Complete the Post-Feelings Survey
10. Travel to store #2
11. Complete the Pre-Feelings Survey for store #2
12. Complete the Past Experience Survey
13. Experience store #2 (between 20-40 minutes)
14. Exit store #2 and complete the Approach or Avoidance Survey
15. Complete the Evaluation of the Aesthetics Survey
16. Complete the Descriptions of the Store Survey
17. Complete the Post-Feelings Survey
18. Travel to store #3
19. Complete the Pre-Feelings Survey for store #3
20. Complete the Past Experience Survey
21. Experience store #3 (between 20-40 minutes)
22. Exit store #3 and complete the Approach or Avoidance Survey
23. Complete the Evaluation of the Aesthetics Survey
24. Complete the Descriptions of the Store Survey
25. Complete the Post-Feelings Survey
26. Complete the Store Preference Survey

Data Analysis:

To analyze and organize the data collected in the experiment, tables of frequencies were used. The way that the tables are set up shows a clear comparison between the three stores. The first table serves as an organizer for the participants' answers towards their evaluation of the environments. The second table's purpose is to organize the adolescents' preferences of the store's aesthetics. Both of the tables use frequencies in doing so.

General recommendations will then be determined on how to design retail environments for adolescents. It will provide designers of apparel retail environments with guidance on how to attract adolescents by designing to their needs and preferences. It will also help adolescent shoppers realize that retail environments try to influence their decision making through aesthetics. Further details are discussed in the implications section in Chapter 5.

*This proposal was submitted to the Institutional Review Board and received approval to perform this research experiment. See Appendix C for the approval form.

Chapter 4

Results

This chapter consists of the five research questions which are used to report the experiment's data and results. The determinants and results of each question are listed and used to come to a conclusion to the question. All of the questions attempt to bring further discussion to the issue of adolescents' preferences for complexity within retail store environments.

Research Question #1: Do adolescents prefer complex, simple, or complex / simple retail environments? The variables used to analyze this question were;

1. Frequencies of preferences for each store (most and least preferred)
2. The means of each question in the Approach and Avoidance Survey (enjoyed being in the store, like to come back in the future, and would recommend to a friend)

The participants' responses to their most and least preferred retail environment were analyzed as separate variables (most preferred and least preferred). The Approach and Avoidance Survey variables were separated by their means but were specifically comparing the means of all three stores.

When looking at the totals of the participants' responses to the stores that they enjoyed the least and the store that they enjoyed the most, there is a clear distinction between overall preferences. Nine out of the ten participants (90%) answered Urban Outfitters (complex environment) as the store that they enjoyed the most. The remaining participant answered Banana Republic (complex/simple environment) as the store that she enjoyed the most (See Table 4). This clearly shows that there was a strong preference for complex environments within this group of adolescents. The one who said that she

preferred the complex/ simple environment also supported this finding because complexity is still represented. No one chose the simple environment.

This preference for complexity is also supported by the Approach and Avoidance variables. These variables were, a) the means of the participants' answers to whether they would shop there in the future, b) would recommend to a friend, and c) if they enjoyed being in the store. The participants rated these on a scale of one to ten and the results strongly favored the complex store (See Table 4). The means (on a likert rating scale 1-10) for the complexity store were 8.6 (future shopping), 8.4 (recommend to a friend), and 8.5 (enjoyed being in the store). The next highest store design was the simple/ complex store which had means of 6, 5.9, and 5.6 respectively. Lastly, the simple store had means of 4.5, 4.3, and 3.3 respectively. The complex design means were obviously higher in preference than the others. It is also interesting to see that the simple/complex store was still preferred over the simple design. These results indicate that adolescents enjoy some amount of complexity over none at all. The complexity factor was preferred more than the simplicity factor.

Table 4: Results to the Approach of Avoidance Survey

Store Preferences	Simple Store Design		Simple / Complex Store Design		Complex Store Design		Total Mean Score of all Three Stores
	Mean	**S.D**	**Mean**	**S.D**	**Mean**	**S.D**	**Mean**
Would Like to shop there in the Future	4.5	1.57	6	2.86	8.6	1.2	6.37
Would Recommend to a Friend	4.3	1.67	5.9	2.7	8.4	1.2	6.2
Really enjoyed being in the Store	3.3	0.9	5.6	1.8	8.5	1.025	5.8

Discussion:

The results strongly support the finding that this group of adolescents preferred complexity within their store environments. Adolescents enjoy complex stores the most and simple stores the least, are more likely to shop in them in the future, and more likely to recommend to a friend. As the stores become more complex their preference increases.

These findings could also be a reflection of the identity stage that adolescents are going through at this age. They could prefer complex stores that offer much variety because they are searching for options to fit their identity and they need a selection to choose from. They do not feel narrow minded within a simple store but free to explore oneself within many options all at once.

These findings could also be extended into other retail environments that sell different products to target adolescent customers. It could be extended into electronics, music, bookstores, or even outdoors sporting goods. This notion could be true within those products as well but further research would be needed.

One could argue that these results are not an accurate measure of the whole population; however, the results are very strong and consistently in favor of the complex design. However, the sample size does need to be taken into consideration as well as homogeneity of the sample. The sample size was ten and they were all Caucasian females from a suburban town and ranged from sixteen to seventeen years of age. This study was not meant to come to a complete conclusion but to cause awareness to these situations and to help generate further interest.

Research Question #2: How does the level of complexity within a store affect the immediate feelings of stress and relaxation of adolescents? The variables used to analyze this question were;

1. The means of the pre-feeling survey (level of stress, energy, and positive feeling of the world)
2. The means of the post-feeling survey (level of stress, energy, and positive feeling of the world)

To determine store design effect, the scores of the pre-store visit questions were subtracted from the post-store visit question scores to calculate the degree of change while in each store. The scores were examined for each group in group order to detect any bias caused by fatigue or order in which the stores were experienced. The results of the change scores are consistent across the groups in scores, eliminating any suspicion of bias due to order.

The change scores were then averaged to see the overall trend in the change of stress for all three questions. In the simple store, each groups' stress level increased (See Table 5). In the complex store, all but one group's stress level scores decreased. This seems to indicate that adolescents find it more stressful to deal with simplicity within the design of retail stores and find complexity more relaxing. The simple/complex store's stress level scores increased, except for one that stayed the same, linking this upward change from simple to complex. Therefore, there is a clear relationship between increasing store complexity and decreasing feelings of stress. It is a constant increase from simple to complex (See Table 5). This could lead one to conclude that adolescents need more complexity to keep them stable and content than the overall population

observed by Berlyne.

The results of changes in energy level were similar. The energy score levels of all three groups in the simple store decreased except for one that stayed the same. The energy score levels of all three groups in the complex store increased. This could imply that adolescents feel more fatigued processing simplicity within design of retail stores. They find it more energizing to experience more complexity.

The score levels of the participants' feelings of positivity about the world fell into this overall trend as well. For the simple store, all the score levels decreased. The participants felt less positive about the world after visiting the simple store. For the complex store, all the score levels increased. The participants felt more positive about the world after visiting the complex store. The simple/ complex store's score levels followed previous patterns with one group's score staying the same, decreasing and one increasing. Overall, these results imply that adolescents' feelings of positivity of the world are affected negatively by simplicity and positively by complexity. It might mean that complexity within design is essential in making adolescents feel happy or pleased.

Table 5: Means and differences of the Pre-Feeling and Post-Feeling Surveys

Group	Simple- DKNY			Simple / Complex- Ban. Rep.			Complex- Urb. Out.		
	Stress	Energy	Pos. Feeling	Stress	Energy	Pos.Feeling	Stress	Energy	Pos.Feeling
1									
Before	2.3	6	7	1	7.3	7.6	3.6	5.6	6
After	4.3	6	6	2.3	6	7	3.3	6.6	7.6
Change	2	0	-1	1.3	-1.3	-0.6	-.3	1	1.6
2									
Before	3	6.3	7.3	4	7.3	6	4.3	5.6	6.6
After	4.3	5.6	7	4	4.6	6.6	3.6	6.6	7.3
Change	1.3	-0.7	-0.3	0	-2.7	0.6	-0.7	1	0.7
3									
Before	1.5	7	8.75	3.25	7	7.5	3.75	5.5	7
After	3.75	6.25	7.25	4.5	5.5	7.5	4.5	6.5	8.5
Change	2.25	-0.75	-1.5	1.25	-1.5	0	0.75	1	1.5

Table 6: Composite Means of change of the variables for each store

	simple	sim./com	complex
stress	1.85	0.85	-0.08333
energy	-0.48333	-1.83333	1
feeling	-0.93333	0	1.266667

Discussion:

In conclusion, the results indicate that complex retail environments affected the immediate feelings of this sample positively and simple retail store environments affected their immediate feelings negatively. This sample's stress decreased and their energy and positive feelings about the world increased while in a complex retail store. This sample's stress level increased and their energy and positivity of the world decreased while in the simple retail store.

Research Question #3: Do adolescents describe simple, complex, and simple/complex stores differently by using different descriptor words for each? The variables used to analyze this question were;

1. The totals of the circled adjectives from the Descriptions of the Store Survey for each store

The responses to the descriptions of the store survey were tallied for each adjective within each store surveyed (See Table 7). The adjectives were considered significant if they were chosen by the majority of the sample which was 5 or more.

The participants described DKNY (simple store) as dull, uninteresting, and monotonous. All of these adjectives are related to each other in a negative way. Therefore, the participants constantly described a simple retail environment to be negative and unfavorable. This evidence helps support the finding that adolescents do not prefer simple retail environments.

The participants' description of Urban Outfitters (complex store) was the opposite. They described Urban Outfitters (complex store) as attractive, exciting, enjoyable, and energizing. All of these adjectives are related to each other in a positive way. As stated earlier in question #2 adolescents refer to energy as a positive thing so energy also falls into the positive category. This evidence indicates again that adolescents view complex stores as a preferable and positive atmosphere.

This finding also revealed a gradual shift in environment descriptions from simple to complex due to the results for Banana Republic (simple/complex store). The participants only chose to describe Banana Republic as attractive and relaxing. These results seem to be both positive; however, in pertaining to adolescents, these results are both positive and negative. Attractive is obviously viewed as positive for every age group

but relaxing could be used as a negative description. According to the results in question #2 adolescents refer to the amount of energy in a different way. Adolescents refer to having a lot of energy as a positive thing and a small amount of energy as a negative thing. Therefore, being relaxed and not having enough energy is viewed in adolescents as a negative aspect. Overall, the participants described Banana Republic (simple/complex store) as both positive and negative.

Table 7: The frequencies from the Descriptions of the Store Survey

*The frequencies highlighted were considered significant because they were equal to or higher than 5

total	Attract.	Frustrate.	Invite.	exciting	dull	Arous.	Discomfort.	Uninterest.	Exhilarat.
simple	1	1	0	0	8	0	2	6	0
sim./com	7	0	2	0	2	1	0	4	0
complex	9	0	1	8	0	1	0	0	1

total	Monoto-nous	irritating	enjoyable	relaxing	stressful	energizing	boring	tiring
simple	6	1	0	2	0	0	4	1
sim./com	2	0	4	7	0	0	3	3
complex	0	0	8	0	0	5	0	1

Discussion:

In conclusion, the results indicate that simple retail environments were viewed as negative and complex retail environments as positive by this sample. Therefore in this study, the level of complexity had a direct linear relationship to positive feeling about the store.

Research Question #4: How did adolescents' preferences for complexity compare to Berlyne's generalized model? The variables used to analyze this question were;

1. Berlyne's plotted results on arousal potential versus the frequency of the sample's preferences for each store (most preferred)

The frequencies of the sample's preferences for each store (most preferred) were plotted to show a direct comparison to Berlyne's (1971) results on preferences for the level of complexity (See Figure 8). The x-axis on Berlyne's graph starts with simplicity and then increases to complexity and the y-axis starts with unpleasantness and increases to pleasantness (See Figure 7).

For this study, the names of the retail environments were added to the graph according to their certain level of simplicity and complexity to relate to the frequencies graph. The frequencies graph placed the store's along the x-axis according to their level of simplicity and complexity. The y-axis on the frequency graph corresponds to the number of participants who preferred that store to relate to the amount of pleasantness in Berlyne's (1971) graph.

Figure 7: Berlyne's Pleasure vs. Complexity Theory

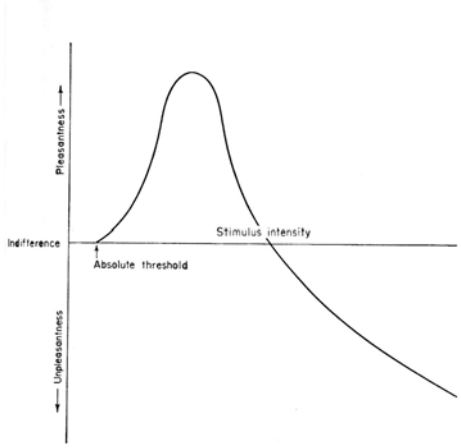
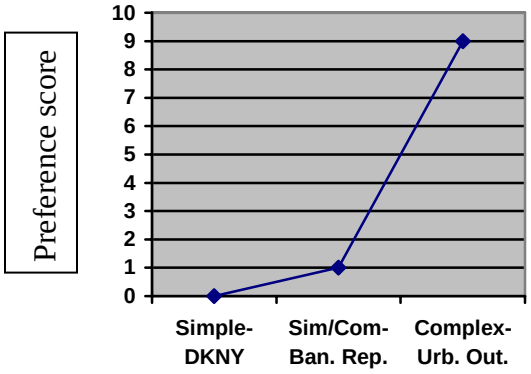


Figure8: Results of the experiments preference scores



Berlyne's (1971) sample consisted of eighty undergraduate students taking elementary psychology courses at the University of Toronto. The participants were exposed to pairs of objects at the same time, one was the "simple" object that was simple in color and shape and the other was the "complex" object that was complex in color and

shape. The participants had to rate each object on a scale of one to seven with one being very displeasing and seven being very pleasing. The results showed a decrease in pleasantness of simple patterns and an increase in pleasantness in that of more complex patterns. However, once complexity reaches a certain level the pleasantness declines and never again increases. Overall, Berlyne's results indicate that complexity is preferred but only up to a certain level.

In comparison to Berlyne's (1971) findings this experiment indicates that adolescents could possibly have a different reaction to pleasantness within complexity. Nine out of the ten participants stated the complex retail environment as their most preferred retail store. The graph of this sample does not decrease further along the x-axis like Berlyne's graph did. This could indicate that the adolescents' preference for complexity could be even higher. The sample might not have been exposed to enough complexity to reach their peak. On the other hand, maybe the level of complexity within Urban Outfitters was their maximum level of complexity and if they were exposed to a higher level of complexity their pleasantness would decline. The way in which this maximum level of complexity could be found is to expose this sample to more complex retail environments until their level of pleasantness declined.

Berlyne's (1971) findings also pertained to a very wide age range. This experiment only focused on adolescents. It could be that there is a certain preference for every type of age. Further research would help with finding out every age groups specific needs and preferences.

Research Question #5: Did the adolescents react positively or negatively to particular aesthetics that contributed to levels of complexity? The determinants used to analyze this question were;

1. The means of the Evaluation of the Aesthetics Survey (enough space between displays, colors are overwhelming, number of items were overwhelming, store layout was helpful, amount of open space, largeness of displays compared to oneself, lighting was overwhelming, likeness of materials, and likeness of colors)

The variables were placed into two different categories for discussion purposes. The two categories are as follows;

- Organization: Enough space between displays, number of items was overwhelming, store layout was helpful, and amount of open space.
- Elements: Light was overwhelming, largeness of displays in relation to oneself, colors are overwhelming, enjoyment of colors, and enjoyment of materials.

For organizational elements the results show a neutral and similar preference for the simple, simple/complex, and complex store (See Table 8). Overall, the sample thought that each store had enough space between the displays, the number of items in each store was neither overwhelming nor not overwhelming, and that each store's layout was neither helpful nor not helpful.

Table 8: Means and standard deviations to the results of the Evaluation of the Aesthetics Survey

Store Characteristic Categories	Simple Store Design		Simple / Complex Mix Design		Complex Store Design		Total Mean Score of all Three Stores
Organization	**Mean**	**S.D**	**Mean**	**S.D**	**Mean**	**S.D**	**Mean**
Enough space between Displays	6.3	0.9	6.5	1.28	6.1	1.37	6.3
# of items are Overwhelming	7.5	1.8	6.9	1.87	5.5	1.5	6.63
Store layout was Helpful	5.8	2.13	6.4	2.49	5.4	1.85	5.87
Organization Total	6.53		6.6		5.66		6.26
Elements							
Amount of open space	8	1.22	8	1.005	8	1.83	8.00
Colors are Overwhelming	7	2.28	8	1.61	5.8	2.09	6.93
Largeness of Displays compared to oneself	8	1.28	9	1.58	8	1.02	8.33
Light is overwhelming	6.5	1.96	6.9	1.87	7	1.61	6.8
Likeness of Materials	3.2	2.04	5.8	1.72	7.2	1.83	5.4
Likeness of Colors	3.7	2.32	5	1.89	7.2	1.72	5.3
Elements Total	6.23		7.12		7.2		6.79

As for the elements aesthetics the sample had more of a mixed opinion (See Table 8). The sample responded similarly to certain elements and completely differently to other elements. The sample found the amount of open space in all three stores to be sufficient, the scale of displays in comparison to oneself to be the same size, and the lighting to be neither overwhelming nor not overwhelming. However, the sample found the colors in the simple (DKNY) and the simple/complex (Bannana Republic) store to be overwhelming, but neither overwhelming nor not overwhelming in the complex store (Urban Outfitters). The sample also did not like the materials used in the simple store

(DKNY), neither liked nor disliked the materials in the simple/complex store (Bannana Republic), and liked the materials used in the complex store (Urban Outfitters). The sample also had the same reaction to the liking of colors used in the store. The sample disliked the colors used in the simple store (DKNY), neither liked nor disliked the colors used in the simple/complex store (Bannana Republic), and liked the colors used in the complex store (Urban Outfitters).

Discussion:

In conclusion, the results indicate the certain aesthetics levels that should be used to appeal to adolescent consumers within retail store environments. Due to the fact that the sample scored neutral to all of the organizational elements could indicate that they are not affected by them. Knowing this, retail environments could focus on meeting adolescents' needs within the elements aesthetics instead of the organizational features.

The elements that the adolescents responded to most positively were included in the complex store design (Urban Outfitters). The elements within Urban Outfitters that the adolescents reacted to most positively were the variety of colors used and the variety of materials used. The sample preferred bright whites on the walls and displays, a bright aqua on certain walls, light brown on the floors and displays, dark grey on the steel stairwell, and beige on certain walls and columns within Urban Outfitters. The sample also preferred the worn wood used in the flooring, texturized steel used for the stairwell, oriental rugs, and ornate wooden display tables used in Urban Outfitters. This could indicate that retail environments should focus on elements involving color and texture to attract adolescents or that they should use variety within aesthetics.

Chapter 5

Conclusion and Implications

Conclusion:

From the results of this study recommendations can be provided for retail environments to attract and retain adolescent customers. The results can also be looked at as a way to warn customers on how a store's design can influence their behavior.

There are general recommendations and specific recommendations that can be made. The general recommendations that can be made are that to attract adolescents the overall environment should be complex. A complex environment has merchandise, “massed out,” (fit as much merchandise on a display as possible), a variety of textures, colors, and patterns used within the decor, asymmetry within the layout, inconsistent lighting, many obstacles, minimal open space, and a winding flow of traffic. It is not understood within this experiment if the maximum level of preferred complexity was reached by Urban Outfitters but a retail store could contain all of these elements and more and it might still be preferred, future studies would help determine this factor.

The complex store that was used in this study was Urban Outfitters and it was favored by the adolescents as the most preferred environment (See Figure 9). Therefore, some aesthetics characteristics within Urban Outfitters would be great recommendations for other retail store's trying to attract adolescents. The characteristics used in Urban Outfitters and that were preferred by adolescents were the variety of colors used, the number of items massed out on the shelves and displays, a variety in various sizes of displays, the sporadic lighting, and the range of textures used.

Specifically, Urban Outfitters used the intensity of colors within all aspects of the store to develop contrast throughout the store. A very bright white and a very light brown were used on the furniture and displays. Light brown and dull grey steel was used in the flooring. Also, bright black was used on the railings, and bright aqua blue and white were used on the walls.

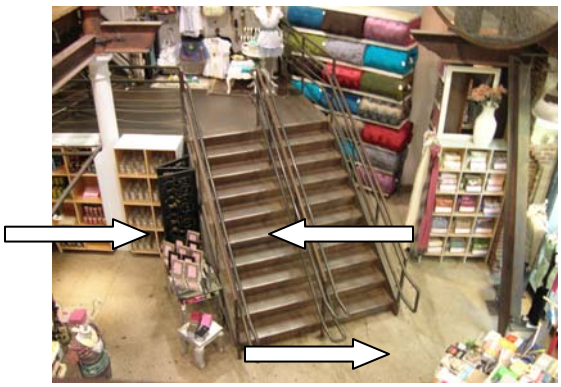
The merchandise was massed out at every possible opportunity within store. There was merchandise hanging at all heights along the walls, piles of merchandise on all shelves on the tables and displays, and racks of merchandise hanging on the sides of tables and displays.

The various sizes of displays used also added another complex dimension to the space. There were displays hanging on the walls all the way up to the ceiling, large pieces of wooden displays, and small tables low enough for a customer to have to reach below their arm reach.

The sporadic lighting added discontinuity to the space which ultimately added complexity. The lighting came from large overhead fixtures that were not laid out in order or according to the fixture and displays. This caused for some areas to be very bright and for some areas to be very dark.

Finally contrast in textures of materials used made a dramatic impact on the space. Rough wood was used for the flooring and displays, textured steel was used for some flooring and the stairwell, and oriental rugs were placed sporadically near displays.

Figure 9: Complex Retail Environment (Urban Outfitters)



- The arrows point to stairs made of steel, the concrete flooring, and laminate shelving

- Merchandise is massed out along walls, along the sides of the displays, and on top of the displays
- The lighting fixtures are not placed sporadically along the ceiling

- An oriental rug develops contrast
- Fixtures are at different height levels

- Abstract artwork provides complexity
- Different sizes of white ornate tables are used as fixtures

While the above recommendations are aimed at retailers to attract adolescents, these same points can also serve as a helpful reminder to customers. Adolescent consumers need to be aware that retailers use specific aesthetics and strategies to persuade them to spend their money at their store. This could be a positive thing if the

customer is aware of it and takes advantage but it could be a negative thing if they allow it to persuade their decisions. For example, a fluorescent yellow blouse could be hung up against a certain colored wall that makes the color more subdued and appealing and persuades the consumers to buy it. However, the blouse might not look as attractive on the consumers' skin tone when they wear it.

There are two things that can be done to make people aware of these tactics that retail environments use to persuade customers decisions. One is that I am going to follow up with the participants in my experiment and inform them of the results. I am going to do this through a flyer that I will provide to them (See Appendix C). This flyer will briefly discuss the main results and how to take advantage of these strategies and how not to be persuaded by them.

Another way people could become aware of the persuasion tactics of retail environments is to continue this research. If this research continues and becomes well known then word will circulate and it will become common knowledge to people.

Recommendations for Future Research:

The purpose of this study was to bring awareness about adolescent behavior and adolescent preferences within retail environments. Of course this study did not encompass all of the factors involving adolescent behaviors and preferences but it is a beginning. The outcomes of this study are not concrete conclusions due to certain limitations to the study. For further research upon this topic there are a few aspects of the experiment that should be handled differently.

The main aspect that should be handled differently is the sample. The sample in this study was limited due to the intentions of the study. The sample should consist of a

wider geographic population, nationally and internationally. To take it even further the same study could be conducted in other countries to compare and contrast the outcomes of adolescents in different cultures. The sample could also encompass a wider age range of adolescents. This sample only involved sixteen and seventeen year olds. This same experiment could be preformed on tweens, young adults, middle aged adults, or seniors to see if the preferences are dramatically different. Further research could also look into other atmospherics like music, fragrance, touch, and temperature to see if a consumer is affected by them. Finally, further studies could try experimenting in different types of retail environments that involved different types of products including electronics, footwear, or accessories to see if there are different preferences within different types of stores.

The way the sample experiences the stores could also be handled differently. This experiment is a Quasi Experiment because there was no control group. Further research could include a control group within the experiment to compare and contrast both the control group and the experimental groups.

This experiment could even be taken further into other retail environments that offer other types of products. It would be interesting to see if adolescents' preferences for complexity extend over into stores that offer electronics, books, outdoors sporting goods, etc. This would need very extensive research because each different store category would need to be looked at separately.

The stores could also be more controlled as well. In further research the researcher could create the three stores using the same products within each to limit the bias of the products within retail environments. It could be the same amount of space and

products but the aesthetics could be different following in simple, simple/complex, and complex criteria. This study could go even further with this notion and be conducted with online retail environments. The researcher could create retail spaces online that the participants could take a virtual tour through.

Overall, hopefully this study will encourage scholars to conduct further research on preferences of adolescents for complexity in retail settings. In the long term this study might even change the decision making within visual merchandising and store design.

References

Allen, P., Stimpson M., and Jones, L. (2004). *Beginnings of Interior Environment*. New York: Prentice Hall.

Berlyne, D.E (1971). *Aesthetics and Psychobiology*. New York: Appleton, Century Crofts

Chartrand, J (2005).The Unconscious Consumer. *Psychology of Moods*, 26 (8) 156-165.

Chevrier, J. Aesthetics preference: Influence of perceptual ability, age, and complexity of stimulus. *Perception of motor skills*, 50(4), 839-49.

Collins, A., Kuczaj (1991), S. *Developmental psychology: Childhood and adolescence*. New York: Macmillan Pub. Co.

Donovan, Robert J. and John R. Rossiter (1982). Store Atmosphere: An Environmental Psychology Approach. *Journal of Retailing*, 58 (1), 34-57.

Evans, Gary (1998). When Buildings Don't Work: The Role of Architecture in Human Health. *Journal of Environmental Psychology*, 18 (4), 85-94.

Fayek, L (1998). The Unconscious Consumer: Effects of Environment on Consumer Behavior. *Journal of Consumer Psychology*, 15(3), 360-366.

Fedorikhin, A., and Cole, C. Mood Effects on Attitudes, Perceived Risk and Choice: Moderators and Mediators. *Journal of Consumer Psychology*, 14(2), 2-12.

Fitzgerald, M (1996). Mood and judgment. *Journal of Consumer Research*. 2, 281-285.

Folkes, V.S (1988). The availability heuristic and perceived risk. *Journal of Consumer Research*. 15, 13-24.

Gilboa, Shaked (2003). Store Environment, emotions and approach behavior: applying environmental aesthetics to retailing. *The International Review of Retail, Distribution and Consumer Research*, 64 (1), 195-211.

Green, William. The *Retail Store Design and Construction*. New York, New York: Van Nostrand Reinhold, 1991.

Hamilton, A (1983). The Role of Conscious Awareness in Consumer Behavior. Journal of Consumer Psychology. 14(2) 360-365.

Iacoboni, M., "Understanding others: imitation, language, empathy" In: Perspectives on imitation: from cognitive neuroscience to social science, Hurley, S., and Chater, N. (Eds), Cambridge, MA: MIT Press, in press, 2004.

Macleod, C., and Campbell L (1992). Memory accessibility and probability judgments and experimental evaluation of the availability heuristic. *Journal of Personality and Social Psychology*. 63, 890-902.

McNeal, M (1999). "Advertising to children: concepts and controversies," *Journal of Consumer Psychology*, 13 (3), 278-288.

Petty, M., and Pham L (1998). The Logic of Feeling. *Journal of Consumer Psychology*, 14(5), 360-368.

Russell, J.A., and Mehrabian, A. *An approach to Environmental Psychology*. Massachusetts.: MIT Press, 1974

Wenz-Gahler, Ingrid. *Concept Shops*. Stuttgart: Verlagsburo Wais & Partner, 2002.

Appendix A

(Survey)

Pre-Feeling Survey (taken before entering the store):

Instructions: On the scale provided circle the number that best describes you at this moment.

Right now I am feeling relaxed or stressed
Relaxed
1 2 3 4 5 6 7 8 9 10

Right now I am feeling fatigued or energetic
Fatigued
1 2 3 4 5 6 7 8 9 10

Right now I am feeling negative or positive about the world
Negative
1 2 3 4 5 6 7 8 9 10

Past Experience Survey (taken before entering the store):

Instructions: On the scale provided circle the number that best describes your past experience with the stores suggested by the researcher.

In the past year I have shopped at this store this many times
0 1 2 3 4 5 6 7 8 9 10 or more

If you have a previous experience with this store, how did you feel when you left….
Not Satisfied
1 2 3 4 5 6 7 8 9 10

Approach or avoidance Survey (done after exiting the store):

Instructions: Circle yes or no to each question regarding your feelings about the store that you have just exited.

I really enjoyed being in this store
Did not enjoy
1 2 3 4 5 6 7 8 9 10

I would like to come back to this store in the future
Would never come back

1 2 3 4 5 6 7 8 9
10

I would recommend this store to a friend
Not Recommend
1 2 3 4 5 6 7 8 9
10

Evaluation of the Store's Aesthetics (done after exiting the store):

Instructions: On the scale provided circle the number that best describes your experience or opinions of the store that you have just exited.

The amount of space between and around displays gave me enough room to shop.
Not enough room
1 2 3 4 5 6 7 8 9 10

The colors of the walls, displays, and floor seemed overwhelming
Overwhelming
1 2 3 4 5 6 7 8 9
10

I felt overwhelmed by the amount of items in the store
Overwhelmed
1 2 3 4 5 6 7 8 9
10

The customer service was
Not Helpful
1 2 3 4 5 6 7 8 9
10

I found the organization of the store layout to be helpful in finding products
Not helpful
1 2 3 4 5 6 7 8 9
10

The amount of open space was….
Not Enough
1 2 3 4 5 6 7 8 9
10

The product displays were very large in comparison to me
Large
1 2 3 4 5 6 7 8 9
10

The temperature of the store was….
Not Comfortable
1 2 3 4 5 6 7 8 9
10

I felt that the amount of light seemed overwhelming
Overwhelming
1 2 3 4 5 6 7 8 9
10

The music played in the store was….
Too Soft
1 2 3 4 5 6 7 8 9
10

I liked the variety of materials used on the walls, floors, and displays (wood, metal, glass, etc.)
Didn't like at All
1 2 3 4 5 6 7 8 9
10

I liked the colors of the walls, displays, and floor
Didn't Like at All
1 2 3 4 5 6 7 8 9
10

The smell of the store was….
Very Unpleasant
1 2 3 4 5 6 7 8 9 10

<u>Descriptions of the Store Survey (done after exiting the store)</u>:

Instructions: Circle as many words that you think describe the store that you have just exited.

Exciting	boring	tiring	attractive	frustrating
Inviting	dull	arousing	discomforting	
Uninteresting	exhilarating	monotonous	irritating	
Relaxing	stressful	energizing	enjoyable	

<u>Store Preference Survey (done after exiting the store)</u>:

Which store did you enjoy the least? _____

Which store did you enjoy the most? _____

Post-Feelings Survey (done after exiting the store):

Instructions: On the scale provided circle the number that best describes you at this moment.

Right now I am feeling relaxed or stressed
Relaxed
1 2 3 4 5 6 7 8 9 10

Right now I am feeling fatigued or energetic
Fatigued
1 2 3 4 5 6 7 8 9 10

Right now I am feeling negative or positive about the world
Negative
1 2 3 4 5 6 7 8 9 10

Appendix B

(Institutional Review Board Approval)

Appendix C

(Implications Flyer)

Experiment Results:

Intentions: This experiment was to determine adolescent's preferences for complexity in retail environments.

Results:

- 9 out of 10 of you preferred the complex store (Urban Outfitters)
- 10 out of 10 least preferred the simple store (DKNY)
- Your overall stress went down, positivity of the world increased, and energy increased within the complex store (Urban Outfitters)
- You described the complex store (Urban Outfitters) positively and the simple store (DKNY) negatively

WARNING!!

- Retailers use methods of using certain aesthetics to try to persuade customer's decisions
- Beware and don't fall into their trap
- Take advantage of these methods by enjoying yourself in the store but don't let it hurt your wallet

Honor's Project Budget

Necessary Costs in order to complete this project are as follows:

1. Copy Costs: Final Paper: 100 pages $0.15 x 100 = $15.00

   4 Copies of Paper: $15.00 x 3 = $60.00

   Binding Costs: $3.00 x 4 = $12.00

   Colored Copies: $1.00 x 50 = $50.00

   4 Copies of Project = $50.00 x 4 = $200.00

   Total: $337.00

2. Survey Costs: Questionnaire: 4 pages $0.15 x 12 = $1.80

   Travel: Full Tank of gas = about $30.00

   Total: $31.80

3. Presentation Costs: Presentation Boards: $4.00 x 8 = $32.00

   Mounting Paper: $4.00 x 3 = $12.00

   Miscellaneous Supplies: $50.00

   Total: $94.00

Total: $462.80